

### **REMARKS**

The Office Action dated October 14, 2008 has been reviewed and carefully considered. Claims 4, 6 and 10 have been rewritten into independent form, but have not otherwise been amended. The other two independent claims, 1 and 9 are amended. Dependent claim 5 is amended. Claims 11-14 are added. Claims 1-14 are pending. Reconsideration of the application, as amended and in view of the following remarks, is respectfully requested.

### **REJECTION OF CLAIMS 2, 3 AND 10**

Claims 2, 3 and 10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Chan (US 6,355,420) in view of Hoffman et al. (EP 1089555A1) ("Hoffman").

As to claim 10, which is rewritten into independent form but is not otherwise revised, it incorporates former claim 9, which recites, ". . . the imaging device being arranged

- to enable the presetting of at least one parameter in order to define a sub-region of the field,

- to define any remaining parameters for defining the sub-region as well as a binning factor  $b$  and an imaging rate  $f$  in such a manner that the maximum rate  $G_{\max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region."

Chan discusses engineering considerations in designing an array of sensors, with respect to sub-arrays, binning and read-out.

However, Chan fails to disclose or suggest "... the imaging device being arranged . . . - to enable the presetting of at least one parameter in order to define a sub-region of the field . . . - to define any remaining parameters for defining the sub-region."

The Office Action refers, in the bottom paragraph of page 2, to lines 35-36 of column 37 in Chan for disclosure of "remaining parameters." This sentence in Chan is "Specifically, these parameters are noise, linearity, quantum efficiency, and temporal resolution."

However, except for temporal resolution, the rest of the parameters are not the kind of parameters that "are defined in such a manner that the maximum rate  $G_{\max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region."

Moreover, temporal resolution is not an example of "... any remaining parameters for defining the sub-region."

Nor is there disclosure or suggestion of a "device being arranged . . . to define any remaining parameters for defining the sub-region."

In addition, regarding the language particular to former claim 10, and still in claim 10 in independent form, the Office Action acknowledges that Chan fails to disclose or suggest, "... at least one adjustment parameter of the diaphragm device being presettable while any remaining adjustment parameters are automatically set." See item 7 of the Office Action.

The Office Action then suggests, in item 7, that Hoffman makes up the difference. The Office Action cites Hoffman FIG. 4 and the FIG. 3 detector, but does not provide any more specific citation.

It is unclear, for example, how Hoffman can reasonably be construed as disclosing or suggesting, ". . . at least one adjustment parameter of the diaphragm device being presetable while any remaining adjustment parameters are automatically set."

Applicant is unable to find any such disclosure or suggestion in Hoffman.

Seemingly, the closest the Office Action comes is its citation to Chan, specifically in the bottom paragraph of page 2, to lines 35-36 of column 37. This sentence in Chan is "Specifically, these parameters are noise, linearity, quantum efficiency, and temporal resolution."

Of these Chan parameters, temporal resolution could be considered an "adjustment parameter," but it is unclear to Applicant how it could properly be considered an adjustment parameter "of the diaphragm device."

More particularly, the parameters cited in that passage of Chan are not "adjustment parameters" "of the diaphragm device."

Nor does Chan disclose or suggest that these Chan parameters "are automatically set."

Chan further fails to disclose or suggest, "while any remaining adjustment parameters are automatically set."

According to the above discussion, and as the Office Action acknowledges in item 7, Chan fails to disclose or suggest, ". . . at least one adjustment parameter of the

diaphragm device being presetable while any remaining adjustment parameters are automatically set."

Also as seen from the above commentary, Hoffman fails to make up the difference.

At least due to failure of Hoffman to make up the difference, the Chan/Hoffman combination the Office Action proposes fails to disclose, suggest or feature, "... at least one adjustment parameter of the diaphragm device being presetable while any remaining adjustment parameters are automatically set."

Moreover, Hoffman is further deficient in that the Chan/Hoffman combination the Office Action proposes fails to disclose, suggest or feature, "... the imaging device being arranged . . . - to enable the presetting of at least one parameter in order to define a sub-region of the field . . . - to define any remaining parameters for defining the sub-region . . . at least one adjustment parameter of the diaphragm device being presetable while any remaining adjustment parameters are automatically set."

For at least all of the above reasons, the rejection of claim 10 lacks validity.

Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 2 and 3 depend from claim 1 as amended, which recites:

presetting, on said imaging device, at least one parameter in order to define a sub-region of the field; and deriving, by said imaging device, any remaining parameters for defining the sub-region as well as a binning factor b and an imaging rate f, said deriving being performed, in view of the at least one preset parameter, in such a manner that the maximum rate  $G_{max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region.

Support for the amendment of claim 1 is found in the specification, e.g., page 2, lines 21-32; page 3, lines 24-29; page 8, line 1 to page 9, line 10; page 9, lines 15-16; and page 10, lines 23-27.

Chan discusses engineering considerations in designing an array of sensors, with respect to sub-arrays, binning and read-out, and the Office Action cites to Chan, col. 36, line 40 to col. 37, line 17 and col. 38, lines 27-35. See item 1 of Office Action.

However, the prior art of record, alone or in combination, fails to disclose or suggest, ". . . deriving, by said imaging device . . . said deriving being performed, in view of the at least one preset parameter, in such a manner that the maximum rate  $G_{\max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region."

For at least this reason, claim 1 as amended distinguishes patentably over the prior art of record.

Claims 2 and 3 depend from, and include all the limitations of, claim 1 as amended, and likewise are patentable over the prior art of record.

#### REJECTION OF CLAIMS 1, 4, 5 AND 9

Claims 1, 4, 5 and 9 stand rejected under 35 U.S.C. 102(b) as being anticipated under 35 U.S.C. 102(b) as being anticipated by Chan.

Claim 1, as amended, distinguishes patentably over Chan, for at least the reasons mentioned above in this reply.

In particular, Chan fails to disclose or suggest, ". . . deriving, by said imaging device . . . said deriving being performed, in view of the at least one preset parameter, in

such a manner that the maximum rate  $G_{\max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region."

Therefore, the anticipation rejection is invalid as to claim 1 as amended.

Claim 4 is rewritten into independent form but is not otherwise revised.

Firstly, Chan fails to distinguish patentably over former claim 1, whose language is incorporated into claim 4 redrafted into independent form.

Former claim 1 recites, "[a] method of operating an image device . . . in which method . . . any remaining parameters for defining the sub-region as well as a binning factor b and an imaging rate f are defined in such a manner that . . ."

In contrast to a "method of operating," Chan discusses engineering considerations in designing an array of sensors, with respect to sub-arrays, binning and read-out, but fails to disclose or suggest this feature of the invention as recited in former claim 9, and incorporated into current claim 10.

Also, the Office Action refers, in the bottom paragraph of page 2, to lines 35-36 of column 37 in Chan for disclosure of "remaining parameters," but, except for temporal resolution, the rest of the parameters are not the kind of parameters that "are defined in such a manner that the maximum rate  $G_{\max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region." Moreover, temporal resolution is not an example of ". . . any remaining parameters for defining the sub-region."

In addition, with respect to the claim 4 language carried over from former claim 4, the Office Action characterizes Chan as disclosing a service mode of the imaging device in line 12 of column 37. Applicant traverses.

Chan relates to a CCD camera for microscopy (col. 35, line 65: "microscopy"). The CCD camera may be programmable (col. 36, line 64: "programmed"), but Chan fails to disclose or suggest, "[a] method of operating an imaging device . . . , characterized in that the sub-region is preset in the service mode of the imaging device."

Furthermore, there does not appear to be any indication that any such hypothetical Chan microscopy "service mode" would entail "the reading out of all pixel signals from the sub-region," or would involve parameters being "defined in such a manner that the maximum rate  $G_{\max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region."

For at least these reasons, Chan fails to anticipate the present invention as recited in claim 4.

Reconsideration and withdrawal of the rejection is respectfully requested.

Claim 5 is amended to conform to the amendment of its base claim 1.

The amendment of claim 5 finds support in the specification, e.g., page 2, lines 21-32; page 3, lines 24-29; page 8, line 1 to page 9, line 10; page 9, lines 15-16; and page 10, lines 23-27.

Claim 5 depends from, and includes all of the limitations of, base claim 1 as amended, and is likewise not anticipated by Chan.

Claim 9 is amended to recite:

the imaging device being configured to enable presetting of at least one parameter in order to define a sub-region of the field, and further configured for deriving any remaining parameters for defining the sub-region as well as a binning factor b and an imaging rate f, said deriving being performed, in view of the at least one preset parameter, in such a

manner that the maximum rate  $G_{\max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region.

Support for the amendment of claim 9 is found in the specification, e.g., page 2, lines 21-32; page 3, lines 24-29; page 8, line 1 to page 9, line 10; page 9, lines 15-16; and page 10, lines 23-27.

Claim 9, as amended, distinguishes patentably over Chan. Chan discusses engineering considerations in designing an array of sensors, with respect to sub-arrays, binning and read-out, and the Office Action cites to Chan, col. 36, line 40 to col. 37, line 17 and col. 38, lines 27-35. See item 1 of Office Action.

In particular, Chan fails to disclose or suggest, ". . . the imaging device being configured to enable presetting of at least one parameter in order to define a sub-region of the field, and further configured for deriving any remaining parameters for defining the sub-region . . . said deriving being performed, in view of the at least one preset parameter, in such a manner that the maximum rate  $G_{\max}$  of the evaluation unit is not exceeded during the reading out of all pixel signals from the sub-region."

Chan fails to disclose or suggest this feature of claim 9 as amended.

Claim 9, as amended, is accordingly not anticipated by Chan.

#### REJECTION OF CLAIMS 6-8

Claims 6-8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Chan in view of Wischmann et al. (US 6,854,885) ("Wischmann").

Claim 6 is rewritten into independent form, but is not otherwise revised.



Firstly, claim 6 incorporates the language of former claim 1, and Chan fails to distinguish patentably over former claim 1, as discussed at the beginning of these remarks. Applicants are unable to see how the Wischmann reference could make up the difference.

In addition, as the Office Action acknowledges in item 8, Chan fails to disclose or suggest the features particular to former claim 6, which are still in claim 6 as drafted in independent form. The Office Action relies on the Wischmann reference in rejecting claim 6.

We traverse on procedural and substantive grounds.

As to procedural grounds, the Wischmann reference does not qualify as prior art as to claims 6-8.

In particular, the effective filing date of claims 6-8 is the date of filing of the German priority application 102 45 715.8, under 35 U.S.C. 119. That date is October 1, 2002. Priority was claimed in the declaration filed concurrently with the instant application on March 29, 2005. Also concurrently, a copy of the certified copy of the German priority application 102 45 715.8 was received by the USPTO from the International Bureau pursuant to PCT Rule 17.2.

To perfect the priority date of October 1, 2002, pursuant to 37 CFR 1.55(a)(4)(i)(B), this reply is accompanied by an accurate translation into English of the certified copy of the German priority application 102 45 715.8.

The Wischmann reference was published on April 24, 2003, after the effective filing date of the instant application.

Pursuant to 35 U.S.C. 103(c)(1), the subject matter of Wischmann and claims 6-8 were, at the time the invention recited in claims 6-8 was made, owned by Philips Electronics or subject to an obligation of assignment to Philips Electronics. Accordingly, the Wischmann reference cannot serve as prior art against the instant claims 6-8.

Regarding substantive grounds for Applicant's traversal, whereas Chan discloses a CCD used in microscopy (col. 35, line 65: "microscopy"), the Wischmann calibration-based correction pertains to X-ray detectors (col. 1, line 27(28): "X-ray detectors"; col. 4, line 34: "X-ray detector"; col. 6, line 16: "X-ray"). Applicant is aware of no disclosure or suggestion that the Wischmann calibration-based correction for X-ray detectors is suitable for a CCD used in microscopy.

In addition, Wischmann does not mention a mosaic of images, collimation or a sub-region. Thus, it is unclear, from Chan and Wischmann, how "calibration images are related to the sub-region."

Based on the above substantive considerations, it is unclear to Applicant by what reasoning it could properly be deemed that it would have been obvious to modify Chan in view of Wischmann to yield an embodiment in which "the evaluation of the pixel signals is performed by means of calibration images related to the sub-region."

Nor can the Wischmann reference compensate for Chan deficiencies in meeting the language of claim 6 incorporated from former claim 1.

For at least the foregoing procedural and substantive reasons, the rejection of claim 6 lacks validity.

Claims 7 and 8 depend from, and include all the limitations of, base claim 6, and are likewise patentable over combination the Office Action cites.

Reconsideration and withdrawal of the rejection is respectfully requested.

NEW CLAIMS

New dependent claim 11 finds support in the specification, e.g., page 2, lines 21-26.

New dependent claim 12 finds support in the specification, e.g., page 2, lines 29-32; page 3, lines 16-18; and page 7, lines 20-22.

New dependent claims 13 and 14 find support in the specification, e.g., page 5, lines 25-27; page 8, lines 14-21; page 10, lines 21-22; and page 11, lines 7-8).

**CONCLUSION**


In view of the above, it is respectfully submitted that the present application is in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Payment is submitted for \$440.00, under 37 CFR 1.16(h), for the addition of three independent claims. These additions result in a total of five independent claims, (two claims in excess of three), requiring a fee of  $2 \times \$220 = \$440$ .

The Director is hereby authorized to charge any fee which may be required, or credit any overpayment, to Deposit Account No. 50-3960.

Respectfully submitted,

Dated: December 1, 2008

  
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